

ARL is committed to customer service, providing breakthroughs for the Future Army, partnering with the private sector, and operating more efficiently and effectively.







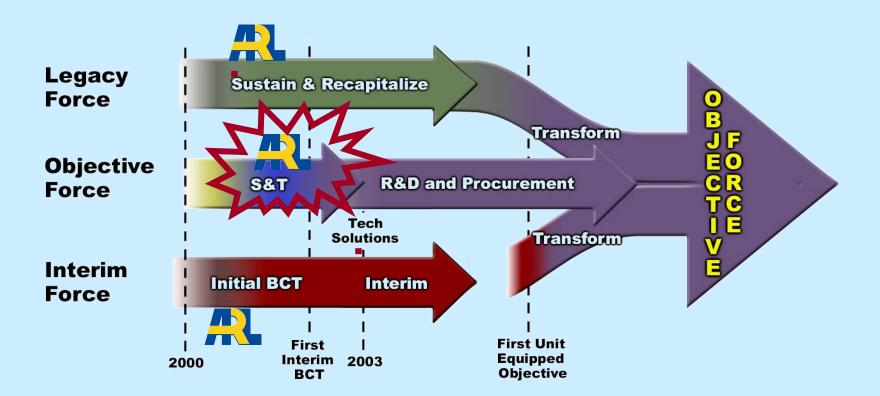
#### **Mission**

Innovative science,
technology, and
analyses to enable Army
Transformation.

# **ARL Vision**

America's Laboratory for The Army ... Providing Materiel Readiness Through Innovative Technology

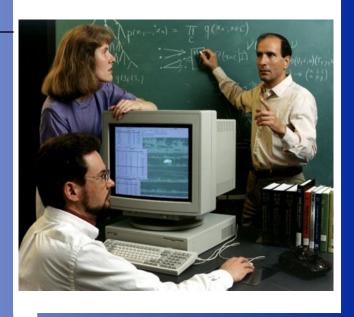
# Army Transformation ARL Contributions



. . . Responsive, Deployable, Agile, Versatile, Lethal, Survivable, Sustainable.

#### Civilian Personnel Profile

Scientists & Engineers	1238
(CP-16)	311
Electrical/Electronics Engineers	241
Physicists/Physical Scientists	125
	59
Mechanical Engineers	107
Materials	65
Engineers/Metallurgists	57
General/Industrial Engineers	55
	51
Aerospace Engineers	48
Engineering Psychologists	23
Chemical Engineers/Chemists	56
Mathematicians/Statisticians	6
Computer Scientists	34



S&E Workforce1238Bachelors395Masters377

Total Workforce 2086
Bachelors 540
Masters
Doctorates 406

#### **OBJECTIVES:**

- To identify compatible technical strengths of HBCU/MIs and match with ARL Directorate mission areas
- To facilitate research partnerships between ARL directorates and HBCU/MIs
- To identify competent minority E&S for potential employment at ARL



# Collaborative Technology Alliances



- Getting more "bang for the buck" through innovative leveraging
- Refreshing and augmenting our inhouse work force

Extending our reach to nontraditional areas of technology generation

#### **INDUSTRY**



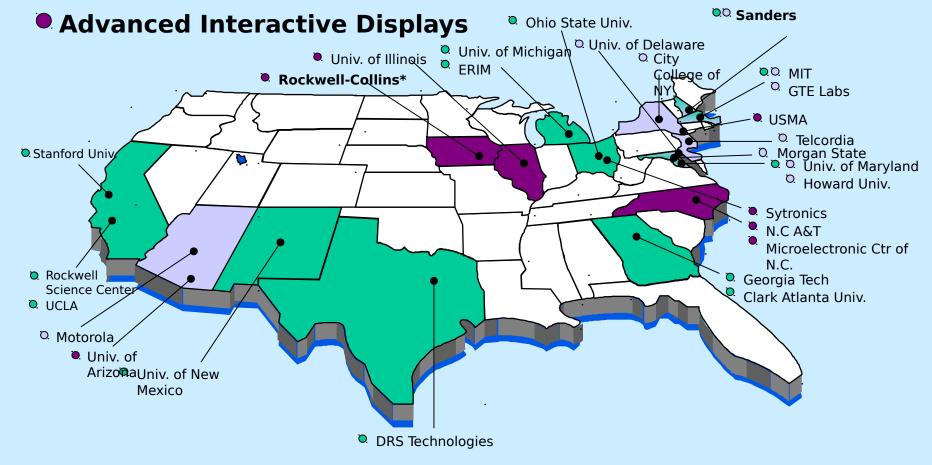


**ACADEMIA** 

**GOVERNMEN** 

### Federated Laboratory • Advanced Sensors Consortium Members

- Telecommunication and Information Distribution



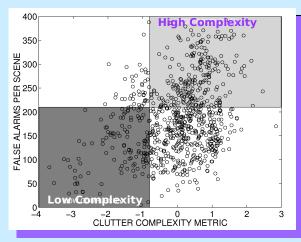


# Partnering With HBCU/MI's









#### lark Atlanta University

- Image Complexity Metric
- ATR
- Enhanced Graduate Curriculum in Signal Processing

Morgan State University

- Alternative Courses of Action Display (ACAD) - the front-end computer interface
- Established PhD Program in Industrial Engineering
- ARL full-time adjunct professor

- Receivers for Mobile Communications
- Established MS & PhD in EE with concentration in Communications
- ARL adjunct professor teaches graduate level course



### Program



Plan

1996 1997 1998 1999 2000 2001 2002 2003 2004 2005

n

Current FedLab Programs - 5 yrs Jun

**Advanced Sensors** 

Advanced Telecommunications & Info Distribu

**Advanced Displays & Interactive Displays** 

New CTA Programs - 5+3 yr.

**Advanced Sensors** 

Advanced Decision Architectures

Communications & Networks
Robotics

**Power & Energy** 

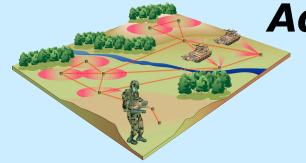


# FedLab Evolution for the Army Vision: Collaborative Technology

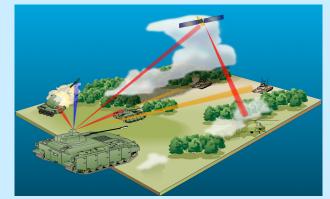


### Communications & News ks





Advanced Sensors



#### Power & Energy









Advanced Decision
Architectures

ARL's investment in HBCU/MI universities total \$15.8 M for FY'00

- HBCU/MI awards (grants) \$7.2M
- ARL contract awards in FY'00 \$5.3M
- ARL Co-op agreements in FY'00-2.7M

#### STARS - (ARL Program)

- Ten current STARS fellows (1-WMRD, 4-ISTD, & 5-SEDD)
- 3 undergrad, 4 first year grad\*, and 3 second year grad
- FY'00 240K obligated for fellows

Summer Faculty/Student Program

- HACU/ARL from Army Small Business
- Faculty & students @ ARL for 10 weeks
- Designed to address Hispanic shortages in ARL E&S
- HACU through NMSU manage program

HBCU/MI Seminar Series

- HBCU/MIs invited to ARL labs
- ARL researchers invited to participate in university graduate seminars

### **ARL Web-Sites**

- www.arl.army.mil
- -Research Programs
  - www.aro.ncren.net
  - For the researcher